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American Gas Journal

SIXTY-THIRD YEAR

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GAS JOURNAL

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Inspection Service for Gas Customers

Description of new system inaugurated by Denver Gas and Electric Light Co.

George Wehrle
Supt. Gas Department, Denver Gas and Electric Light Co.

Good will, increased sales of gas and of gas appliances are expected to be the results of a new department of inspection service, described in the following article. Anything that will help the gas customer, that will put him in a good frame of mind will be bound to react to the benefit of the gas company. To forestall complaints by regularly and carefully inspecting, adjusting and renewing gas equipment is to make a friend out of the gas customer by showing him that the gas company is looking out for his interest. It is interesting to note that the work of inspection is expected to pay for itself through reduction of complaints.—Editor's note.

RECOGNIZING the value of service above everything as being the greatest single factor toward increased gas sales and revenue, the Denver Gas and Electric Light Co. recently inaugurated a campaign of complete inspection of their 58,000 gas customers, with the goal of achievement fixed at the nearest approach to 100 per cent service that it is humanly possible to attain.

It is now pretty generally conceded by modern gasmen that satisfactory and proper utilization of gas on the customers' premises is all that really counts, and when this has been coupled with the most economical gas that can be manufactured to produce these results, that successful operations are assured. The number of heat units in a cubic foot of gas when it leaves the plant does not mean a thing to the customer, because what he is interested in, to the exclusion of everything else, is the accomplishment of work by heat, in the least time, at the least expense, and in a satisfactory manner. It does not matter what the heating value of the gas is, as long as the customer is pleased with the utilization results. Left to himself, the customer will sooner or later get into trouble with his gas equipment, for it will get dirty or out of adjustment, and give unsatisfactory service, resulting finally in a complaint. To forestall complaints is the longest step toward perfect service. With these thoughts in mind, the Denver Company planned its campaign of inspection, which will continue indefinitely, since it will take from eighteen months to two years to cover the city, at the end of which time the work will be started over again.

Training of Inspectors

The gas inspection program was formally started on June 18th, when twelve men reported for work. These men were all sophomores and juniors from the University of Colorado, and none of them had ever done work of this nature before. To acquaint them to some extent with the work they were to do, a two weeks' period of training was given them. This training consisted of three days in the meter shop, where they worked at cleaning, repairing and adjusting regulators; one day with the service pump truck, where they were given instruction in service stoppages, their cause and remedy. Two days were spent with meter men, where instruction was given regarding causes of meter troubles and their remedy. One day was allowed with the measuring men, where they became acquainted with different kinds of appliances and piping. They were given one day with appliance repairmen, where they were given instruction in burner adjustment. One day was spent in the fitting shop, where a general idea was given of standard pipe sizes, knds of fittings, appliance connection, etc. The training period was completed with three days spent with the crew installing service regulators, where practically the same work is done as in the inspection program.

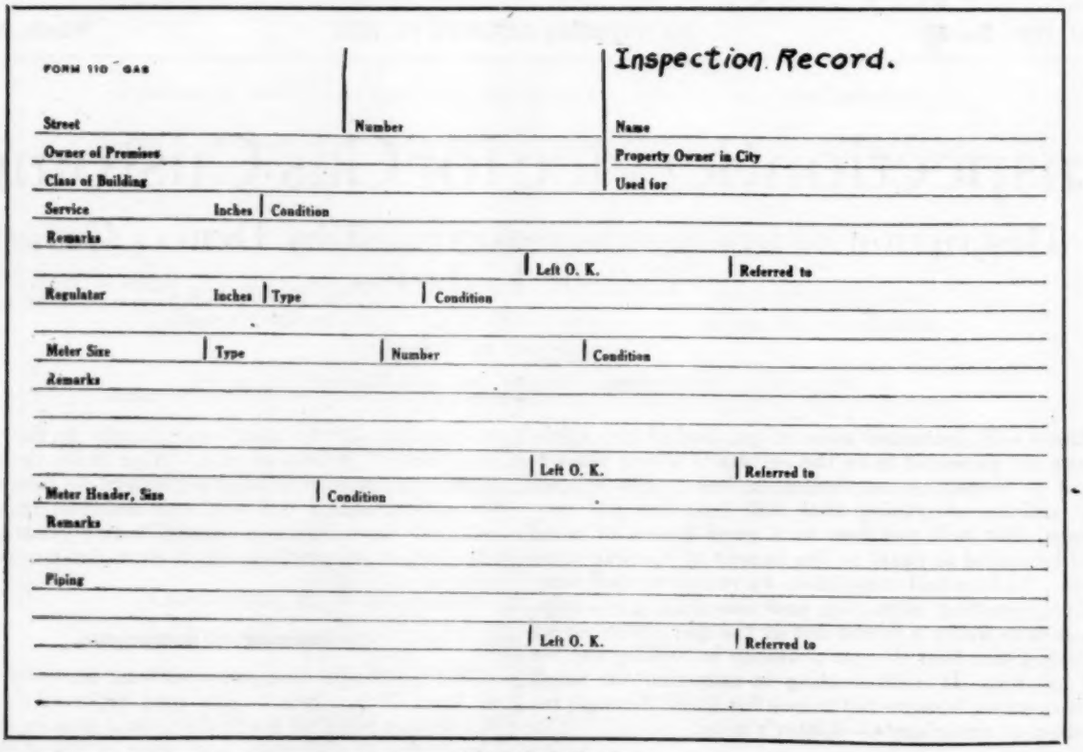
A thirteenth man was hired and put through the same course of training as the future inspectors. The duty of this man was to do the clerical work required and handle the reports.

The work of actual inspection was started on July 2nd. The men were put under a competent service supervisor, who has charge of the field work of the

men. It is his duty to make out the assignments and follow up the work. He is a capable man, with years of experience in fitting, meter and trouble work, has a good education and personal appearance, and is well liked by the inspectors.

Organization of Inspection Work

The method of handling the men in the field is comparatively simple. The supervisor covers the district assigned, gets a general idea of the number


FORM 110 GAS

Inspection Record.

Street | Number | Name

Owner of Premises | Property Owner in City

Class of Building | Used for

Service | Inches | Condition

Remarks

Left O. K. | Referred to

Regulator | Inches | Type | Condition

Meter Size | Type | Number | Condition

Remarks

Left O. K. | Referred to

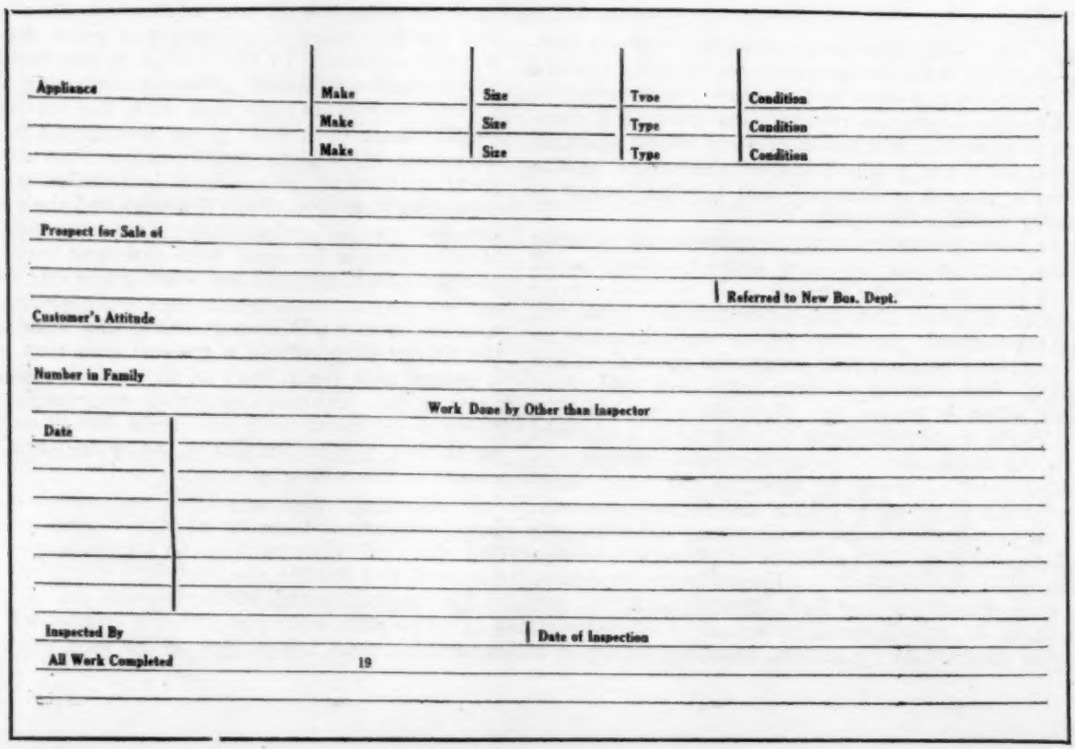
Meter Header, Size | Condition

Remarks

Piping

Left O. K. | Referred to

Front of Card.


Appliance | Make | Size | Type | Condition

Make | Size | Type | Condition

Make | Size | Type | Condition

Prospect for Sale of

Referred to New Bus. Dept.

Customer's Attitude

Number in Family

Work Done by Other than Inspector

Date

Inspected By | Date of Inspection

All Work Completed 19

Back of Card.

and classes of buildings, and then makes out the various assignment cards. The men work from a centrally located equipment box, and as they report in the morning assignment cards are given them, which they follow until all customers in the assigned territories have been inspected. They note on the assignment cards the number of premises inspected and the address of all customers missed, giving the reason why any inspections are lacking. They make out individual inspection reports for each inspection made, showing address and name, and fill in all data called for. When an assignment is completed, it is turned in to the supervisor with the inspection reports, and a new assignment is obtained. The supervisor keeps a map of the district being inspected,

FORM 86 GAS

GAS INSPECTION ASSIGNMENT CARD

INSPECTOR _____

DATE ___ _____

START _____ A. M. _____

_____

ASSIGNMENT _____

_____

_____

_____

_____

REPORT _____ P. M. _____

INSPECTOR'S REPORT

CUSTOMERS INSPECTED _____

CUSTOMERS MISSED _____

ADDRESS	CAUSE

LAST CUSTOMER INSPECTED _____

BY _____ DATE _____

(OVER)

showing the assigned territories, and as each assignment is given out, the inspector's number is written on the map, giving the supervisor a record of the location of the men at all times. If an inspector needs the assistance of the supervisor, he looks for him at the box. If he has been called away, he leaves a record there of where he may be found.

Tabulation of Data

All reports are turned in to the inspection clerk each day, who makes out daily and weekly reports, showing tabulations of data. The regular work of the inspectors consists of examining pressure and adjustment. He cleans the regulator, if necessary, and puts all appliances in adjustment. Any trouble which cannot be readily remedied, such as stopped services, or piping, or binding meters, are noted on his inspection report and referred to the proper department for immediate action. If an appliance is very old or in bad condition, the report is referred to the New Business Department in an endeavor to sell a modern appliance. One of the special features of the inspection is to learn the attitude of the customer toward the company. This the inspector does by tactful conversation with the customer.

In estimating the time required for the inspector to make one inspection, the results of the regulator crew over a period of two months was taken and reduced to minutes per job. It was found that the average time required to install a regulator, make

PRINT ON FOLLOWING DIAGRAM NAME OF STREETS; SHOW CORNER WHERE START OF INSPECTION WAS MADE. DIRECTION OF PROGRESS AROUND BLOCK, AND APPROXIMATE LOCATION OF LAST INSPECTION COMPLETED:

REMARKS: _____

_____

_____

_____

necessary adjustments and remodel piping where found to be advisable, was one hundred and fifty-two minutes. As the inspectors were not to remodel any piping, or do any extensive work that might be required, it was assumed that their average time per inspection would be one-third that of the regulator crew, or about fifty minutes. The accuracy of this estimate is shown in the following summary of the first four working days:

Number of inspectors	12
Number of working hours	32
Number inspector hours	384
Number inspections made	416
Average time per job	55.4 minutes

As stated before, this work was started with young

(Continued on Page 117)

Correct Use of Manufactured Gas

The principles of efficient combustion of gas obtaining the maximum heating effect

Samuel S. Wyer

Associate in Mineral Technology, United States National Museum

The following article is taken from Bulletin 102, Part 8, issued by the Smithsonian Institute of Washington, D. C. It tells in clear, simple language the way in which gas should be used in the home to derive from it its greatest heat value. It outlines the principles of gas combustion and explains the necessary regulation of gas burners in stoves, ovens, house heating apparatus, water heating apparatus, etc., to secure maximum efficiency of operation.—Editor's Note.

Methods of Utilization Determine Quality of Service Produced

GAS service is radically different from every other kind of public utility service in that the gas can not be used by the consumer as received, but—

First, must be mixed in proper proportion with another substance, atmospheric air.

Second, this mixture must then be completely burned.

Third, the flame must be so directed that the heat generated will effectively get into the food, air, water, or mantle that is being heated, with a minimum loss.

The results obtained will depend primarily on the gas-utilization appliance and the consumers' skill and care in operating. All these operating features are beyond the gas company's control, but are vital in determining the quality of the service produced by one consumer and the effect on the service of other consumers. Women, as a class, do not take easily to manual matters involving mechanical adjustments; so these facts, therefore, make obvious the need of education in the correct use of gas in the home. To meet this service situation, gas companies should give demonstrations and teach consumers correct and safe use of gas.

Absence of Gas-Appliance Regulations

Much money and effort have been spent in developing and enforcing standards of gas quality. However, it has not been appreciated that the type of appliance and method of use are of much more consequence in determining the kind of service the consumer can get than the specific quality of gas delivered to the appliance.

What Must Happen When Gas is Burned

The combustion—that is, the burning of manufactured gas—can take place only by first mixing the gas with the proper proportion of atmospheric air. About 4½ cubic feet of air must be mixed, by the gas consumer at his burning appliances, with each cubic foot of manufactured gas in order to insure perfect combustion. If not enough air is mixed with the gas, the combustion will be imperfect and wasteful.

When manufactured gas is burned by complete combustion, each cubic foot of the gas will form one-half cubic foot of carbon dioxide and 1 cubic foot of steam. This carbon dioxide is the same substance that is exhaled from the lungs.

The combustion of 1,000 cubic feet of manufactured gas will form 1,000 cubic feet of water vapor or steam, which when condensed, will make approximately 4½ gallons of water. It is this water vapor that causes the bakers and broilers of stoves to rust, and, when gas is used in open fires without flues, may make the walls and windows "sweat."

What May Happen When Gas is Burned

If the combustion of manufactured gas is not complete, carbon monoxide will be formed instead of carbon dioxide. This carbon monoxide is a deadly poison and, therefore, dangerous, and for this reason a room in which gas is burned should be ventilated. Although carbon monoxide itself is odorless, an offensive odor is usually produced by the improper combustion conditions that produce carbon monoxide. Therefore, an offensive odor from burning gas is an almost infallible indication of carbon monoxide generation. The poisonous action of carbon monoxide gas is so marked that one-tenth of 1 per cent is enough to in time produce fatal results. This poisonous gas is especially likely to be formed:

a. During first few minutes' operation of any automatic water heater.

b. When the inner cone of any blue flame impinges on a metal surface.

c. When a luminous flame is deflected and impinges on a cool surface.

d. When any flame is not supplied with sufficient air.

e. When a radiant fire heater is operated so that the radiants glow more than three-quarters of the distance from the bottom to the top.

Combustion Products of Gas Can Not Be Destroyed

The inevitable products, carbon dioxide and water vapor, can not be destroyed, although the water vapor when it is cooled will condense to a liquid. There have been many claims made by manufac-

turers of heating devices that their devices absorb the combustion products, but all such claims are untruthful.

Flueless Heating Stoves Always Dangerous

There are many so-called "odorless," "smoke-consuming," and "chimneyless" gas-heating appliances in use. These are always dangerous and a positive menace to health, and ought never to be used.

The gas industry should grow and meet the increasing future demands of incidental house heating. This desirable growth, however, may be retarded by untruthful claims that flues for room and water heating devices are not needed. Much depression and lassitude of spirit, lower vitality, and hence less resisting power to the ever-present disease germs may be traced to gas fumes from flueless gas-heating stoves. These vitiated room air conditions must be prevented if there is to be an increasing use of manufactured gas for heating service.

Flueless Heating Stoves More Dangerous Than Flueless Cook Stoves

In the kitchen the cook stove is seldom used for more than one hour at a time. The volume of steam from the cooking food will be much greater than the volume of the combustion products from the gas, and the steam alone will make ventilation necessary.

The person in the room will be constantly moving about, with head 4 to 5 feet above the floor level, and in all probability the kitchen door will be opened several times during the cooking, thus increasing the ventilation.

In contrast with this condition, when a heating stove is used in a bedroom or bathroom, the period of use is much longer, the ventilation is less, the person in the room will be quiet with head closer to the floor, and the doors will probably, at least in the bedroom, not be opened or closed. Furthermore, a flueless stove properly adjusted at 9 o'clock in the evening, when the person goes to bed, may become a carbon-monoxide generator several hours later, due to deflection of the flame or small change in pressure, when the person is asleep.

Hoods over open-top kitchen stoves, of course, are always desirable.

Blue-flame Burners

Manufactured gas, to be burned in large volume, must have some of the air mixed with the gas before the gas reaches the flames. This is the fundamental principle of the Bunsen or blue-flame type of burner. The air taken in to form the mixture is called the primary air, and will usually be only a small part of the total air required. The rest of the air necessary for complete combustion, called the secondary air, will be taken from the atmosphere surrounding the burning flame. Such a blue flame does not smoke or deposit free carbon on a cool surface, although if the flame is sufficiently chilled some of the gas will escape unburned.

The action of the mixer is shown in Figure 8. The gas, at pressures above atmospheric air, is forced through a small hole by the pressure in the gas pipe, and thus acquires a relatively high velocity in passing through the small spud opening. In this way an aspirating or sucking action is produced around the orifice and this draws in atmospheric air

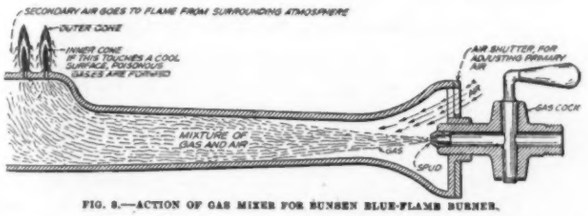

SECONDARY AIR GOES TO FLAME FROM SURROUNDING ATMOSPHERE
OUTER CONE
INNER CONE IF THIS TOUCHES A COOL SURFACE, POISONOUS GASES ARE FORMED
AIR SHUTTER FOR ADJUSTING PRIMARY AIR
GAS COCK
MIXTURE OF GAS AND AIR
GAS
SPUD

FIG. 8.—ACTION OF GAS MIXER FOR BUNSEN BLUE-FLAME BURNER.

from the room so it will mingle with the gas. A gas mixer is, therefore, in effect merely a small air injector. The amount of air going in may be varied by adjusting the air shutter.

The mixer shown is of the type always used on cooking stoves, all hot-water heaters, all incandescent mantle lamps, room heaters of the radiant type, many other room heaters, and all house-heating furnaces or boilers.

Luminous-Flame Burners

If manufactured gas is forced out through a small hole, about the diameter of a pin, enough air can be mixed with the issuing gas to insure perfect combustion. This is the principle of the yellow or luminous flame burner, as shown in Figure 9. The

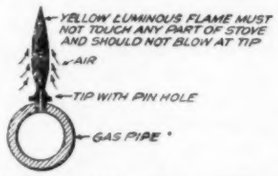


Fig. 9.—Action of Luminous Flame Burner

flames must not be permitted to come in contact with any solid body, because if they do they will deposit carbon and probably produce carbon monoxide. Only very small quantities of manufactured gas can be burned in such burners. In this yellow or luminous type of flame the production of the light is due to the incandescence of momentarily existing carbon particles furnished by the decomposition, by heat, of the gas itself, before coming in contact with the air.

This burner never has a mixer for premixing part of the air as is required in the Bunsen blue-flame burner described in the preceding section. It can be used only for room-heating purposes and then only in positions where the flames do not impinge on each other or on any surface.

Cooking Requires Little Heat

That cooking operations require relatively low temperatures is not generally appreciated; that is, in all boiling operations the temperature is never above 212 degrees F. and in all baking, roasting, and broiling operations it is always below 500 degrees F.

The total amount of heat required to cook the food is very small and the heat that does useful work must not be merely delivered into the cooking vessel but must actually penetrate and get into the food.

The big problem is, therefore, in directness and efficiency in getting the heat into the food and efficacy in insulation or holding it in.

Steps Necessary for Correct Cooking

a. The gas must be properly burned; that is, it must be properly mixed with air so as to burn with a pale blue nonluminous flame. A luminous flame will be wasteful and will deposit soot on the cooking vessel.

b. The flame must be properly directed; that is, the tip of the flame must come close to the cooking vessel. If the flame is too short to reach the cooking vessel, or is blown to one side by a strong draft of air, gas will be wasted, a longer time will be required, and if the flame tip is too far away it may be impossible to cook, although the short, improperly directed flames may be kept burning a long time.

c. In top-burner operations the heat generated by the burning gas must be delivered through the cooking-vessel walls and through the food. Grid or open-top stoves are desirable for good service so as to get the most direct path for the heat from the flame into the food. The heating of a baker is merely heating the inside of a small room and it should be fitted with a flue connection.

d. The use of insulated ovens so as to cut down the radiation losses will usually halve the gas consumption for a given gas operation as compared with the uninsulated oven. Thermostat control for gas consumption will result in better oven service, less gas consumption, and a saving in burned food; that is, it takes the "guess" out of cooking and insures duplication of results.

More Gas is Used for Cooking in Winter Than in Summer

The heating value of the gas in winter will not be any lower than in summer, because the heating value is increased 1 per cent for each 5 degrees of decrease in temperature of the gas, and will actually be higher during the low temperature period in winter than it is in summer. However, the starting temperature of the food and water that must be heated in cooking will be much lower in winter than in summer; therefore, a larger quantity of heat will be needed to bring the food or water to the boiling point. The radiating loss from the cooking vessel and burner, because of the low temperature of the surrounding air, will also be much higher in winter than in summer, and thus will increase the gas consumption.

Rusting of Ovens and Burners

Rusting of ovens can almost be eliminated by opening the oven door slightly for a few minutes after the burners are lighted. This permits escape of the greater part of the moisture, which is produced by combustion, and prevents too rapid condensation.

Oven linings and burners are best protected from rust by the application of oil or grease, free from salt. This should be done while the oven or burner is warm, as often as may be necessary.

Steps Necessary for Correct House Heating

a. The gas must be burned with perfect combustion. However, this is merely the first step.

b. The combustion products must be made to deliver the most of their heat into the air or water that is to be heated, and before leaving the heating device, and going into the flue, should be cooled to within 100 degrees of the air or water that is heated. This requires adequate heat-radiating surface, a feature lacking in many appliances. Failure to appreciate the importance of this second step, rather than merely obtaining perfect combustion, is responsible for the gross waste of gas in so many heating devices.

c. The radiant-fire heater works on the same principle as the incandescent mantle lamp; the coarse or heavy radiant element replaces the fragile mantle. However, the radiant-fire heater should never be operated so the radiants glow more than three-quarters of the distance from the bottom to the top. When this rate is exceeded, carbon monoxide is liberated in more or less dangerous quantities.

d. With hot-rair furnaces or steam or hot-water boilers, the use of a thermostat for controlling the gas will give more uniform and better temperature conditions in the living rooms and also save gas.

e. Flues should be fitted to prevent back drafts and smothering of flames.

Steps Necessary for Correct Hot-Water Heating

a. The gas must be burned in a Bunsen (blue-flame) burner with perfect combustion. Yellow flames must never be used. The inner cone of the Bunsen flame must not touch the metal surface of the water heater.

b. The heat produced by the burning of the gas must be transferred to the water in the most direct manner possible. The low efficiency of so many heaters is due to the inadequate heating surface so that the water does not have a chance to properly absorb the heat that has been produced.

c. The combustion products should be cool when they leave the heater and carried to a flue. The flue should be fitted to prevent back drafts and smothering of flame.

d. Automatic water heaters are of two classes:

(1) Instantaneous, where the flow of water starts the gas. These use gas for short periods at high rates of flow and may disturb the pressure conditions in the neighborhood.

(2) Storage with thermostat control. These use small rates of gas flow for longer periods but only to maintain a set water temperature in the tank.

e. If any form of storage is used, the heat delivered to the water should be held in; that is, the storage tank should be properly insulated to cut down the radiation losses. Insulation of hot-water pipes from heater to where they enter walls is also desirable.

f. With any form of storage tank the use of a thermostat for controlling the gas will result in better service and less gas consumption.

g. The heater or tank must be properly connected, cold water introduced at the bottom, and the hot water removed at the top. Provision should also be made for draining and blowing out of sediment.

(Continued on Page 120)

In Re "Non-Fingery Coke"

To the Editor of the American Gas Journal:

As criticism has been invited by the managing editor as to matter treated in the Journal, I beg leave to offer the following in connection with the article on "Non-Fingery Coke" by Kotaro Shimomura, published in the American Gas Journal, July 21, 1923.

Under the caption "Method Used at Osaka Plant" we read that:

"1. Brisk agitation is necessary to prevent the coal from caking in large pieces.

"2. The apparatus is to be provided with the fewest projections or appendages possible, consistent with its proper working, in order to prevent semi-coal from hanging on and accumulating.

"3. For evident economic purposes, the operations of feeding and of discharging must be continuous, for which object the agitating and conveying must go together.

"4. Easy access to all the parts of the inside of the retort throughout its entire length without stopping the working is necessary for inspecting and cleaning when needed.

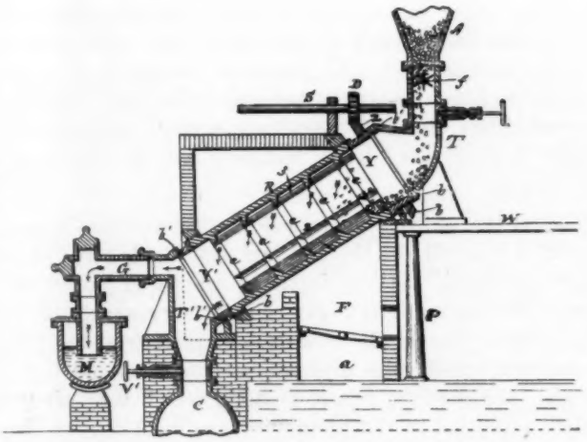
"5. The possibility of easy regulation to suit different kinds of coal. The apparatus, designed so as to meet all the above requirements, was found to work quite smoothly, and the writer is satisfied with the successful practical working on a large scale."

Had the above description been accompanied with an illustration of the method used at the Osaka plant it would have been of more practical value to the reader; and, as an invention of the writer, patented back in 1881 (and consequently free to the world), seems to meet—remarkably well—the above requirements. I beg leave to submit it with a few further explanations, to make the matter more clear.

The patent is dated September 20, 1881, and numbered U. S. 247,322, the subject being simply, "Gas Retort," (it was a revolving one). The apparatus was tried in the yard of the Leeds, England, gas works, and also erected at Belfast, Ireland, where I was shown it in May, 1897; but I believe it was abandoned at both places, and for the very reasons which caused us not to try it at all, but which obstacles, as I saw them in my apparatus, Mr. Kotaro Shimomura seems to have very cleverly overcome in his, although such a method of manufacturing coal gas would not be suitable or desirable at least, with our coals. Under the title "An Improvement (but on paper only) in Apparatus for Making Gas" (illustrated), there was published a description of the patent in the American Gas Light Journal, page 145, of the March 2nd number, 1887 (Vol. 46); also in the Scientific American for July 28, 1883.

Description of Apparatus

Figure 1 is a sectional view of an apparatus (not drawn to scale) embodying my invention of forty years ago, and which seems to fit so well the process described in Mr. Shimomura's paper. R represents the body of the retort, which was made of cast iron, cylindrical in shape, terminating in cylindrical iron ends YY', which are fast to and form part of the retort. The retort is supported on half-bearings (b), on which the ends YY' rest and move. Means for the lateral expansion and contraction of the retort were provided but are not shown in the drawing. The inner wall of the retort is lined with a series of compartments or pockets and divided transversely into a number of sections by means of annular flanges e, and these sections are again subdivided by means of longitudinal ribs 1, 2, 3, 4 and 5. The retort is set in an inclined position in order to deliver the coal from the pockets of one section to the next, and so on when the retort is revolved or put in motion (shown by the arrows).



The retort is closed at its upper end by a mouthpiece, T, which can move slightly up or down to allow for expansion if necessary (not shown in the drawing), and at its lower end by a fixed mouthpiece, T', with which the parts YY' make gas-tight joints by means of V-shaped bearings b'.

The upper mouthpiece was surmounted by a coal-hopper and in practice set in a lute, not a stiff connection as shown in the drawing. This was found necessary to allow for any lateral expansion of the retort which would occur. The top of the coal-hopper was provided with a gas-tight lid, and the lower end with a six-armed gate, f, which regulated the feed of the coal, and below the gate there was a valve, V, for obvious reasons. The top of the lower mouthpiece, T', was in communication with the pipe, G, through which the gas made its way to the hydraulic main, M, in the usual way, and at its lower end there was formed, as is shown, a communication with the coke chamber, C, which also carried a valve.

This coke chamber could have been replaced by a water-gas generator, in which such water-gas as

might have been produced either in quenching the hot coke, or by supplemental means, not then described, could have made its way also to the hydraulic main, as long as valve V' would be left open. F, and a, represent the furnace by means of which the retort could be heated; and P and W, supports and floor for part of the apparatus. S represents a shaft driven by power not shown in the drawing, and D, a gear-wheel on shaft S, which engaged a bevel gear-wheel, Z, fastened to the upper end Y, of the retort.

As stated at the beginning, though this apparatus was never tried by the inventor because of reasons which need not be told now, and which were not under his control, the president of his company, then the City Gas Company of Norfolk, Virginia, was determined to give it a trial, and only gave way because of the insistence of the writer not to spend money upon it. And yet, others had more faith in it, for the writer saw several of these retorts ready for operation in Belfast, Ireland, and was told it had also been tried at Leeds, England. Naturally, it was abandoned as the writer foresaw. But Mr. Shimomura's ideas, had they been known then, might have made a success of what certainly was a failure at the time.

Now, the writer wonders if Mr. Shimomura's apparatus is at all like the one just described; but "The Requirements," as set forth in his paper seem to point that such might have been—or very nearly so—the case. The student of gas engineering should, however, not despise altogether, stories of old failures. The inclined retort system, which was given early attention in the history of gas lighting, was a failure until its successful revival by Andre Coze at Rheims, France. So was the system of carbonizing coal in vertical retorts, which was considered to be impossible. The history of water-gas could produce stories of quite a number of earlier failures, as could other branches of engineering, notably that of steam engineering.

Hence, while looking forward, let the pioneers in our profession not be overlooked entirely, as Mr. Walton Clark so nicely put it in his recent address before the Southern Gas Association. It might even "pay" to look over some of the abandoned inventions now apparently sleeping their last sleep in the archives of the U. S. Pat. Office. One of these, in particular, was published in the columns of the American Gas Light Journal under the headlines of "An Abandoned Invention of Merit." See the December 18, 1911, number of the Journal. This invention was actually, successfully operated on a rather large scale for over two years, and then—forgotten.

(Signed) FREDERIC EGNER.

Advertising and Public Utilities

IMPORTANCE OF ORGANIZATION OF PUBLIC UTILITIES ADVERTISING ASSOCIATION STRESSED

J. Carmichael, Director Iowa Committee on Public Utility Information

THE organization of the Public Utilities Advertising Association is a crystallization of a determination to make the public utilities one of the best advertised industries rather than one of the least or worst advertised. This movement cannot and should not be allowed to proceed in a haphazard fashion. It is a big job and must be approached just as utility men approach the technical problems which they are called upon to face constantly.

The theory of advertising is as simple as A. B. C. The purpose is to convey from the producer to the consumer simply, concisely and attractively an idea of what he has to sell.

But, however simple this may sound, the desired end is not so easy to accomplish, especially in view of the great mass of advertising literature which the public is asked to read daily. The people are not going to read all of this advertising. If they are to be induced to read utility advertising it must be dressed up, made striking enough to attract their attention and impressed on their minds.

Wise heads in the advertising business recognized this long ago and specialists in this field—thousands of them—are constantly exercising their training and genius to attract public attention.

The utilities are handicapped by a late start. The other fellows have been in the game for years, have built up advertising organizations, have studied and planned out ways to grasp attention.

For this reason it is more necessary that the utilities give thought and painstaking study to the problem of getting their story across to the people.

This association, composed of men who are giving public utility advertising serious attention, can get together all of the best suggestions of thousands of members and disseminate them for the benefit of all. It can accomplish results for the industry comparable to the splendid achievements of the technical, accounting, public relations and other sections of the A. G. A.

The accomplishment of its purpose will be accelerated by the co-operation of every member company of the national association.

Industrial Engineering from the Commercial Standpoint*

A few suggestions for industrial gas applications

B. R. Armitage

Empire Gas and Electric Co.

The commercial part of industrial engineering is a somewhat smaller problem in many instances than that of the larger industries and manufacturing concerns, but affords an opportunity of no little importance to the utility selling gas service in any community.

While the individual sales of both gas and current are small compared with those made to a large factory, the total aggregate is considerable and gives us a diversity of industrial consumers whose load is perhaps more staple and profitable to the company. If this class of industrial consumer can be added to and the field worked to the maximum, the effort and expense will be well warranted by increased revenues.

This part of the industrial business covers the smaller users who can be classified under industrial rates. An industrial salesman can go through the business section of any city and cover the smaller shops and garages and find plenty of opportunities for increasing business.

Although industrial gas heating increased from 5 per cent to total gas sold in 1910 to 25 per cent of total sold in 1920, it is the field we have got to give our attention to, because in the next ten years we will not be able to make so large an increase in domestic gas consumption. In 1910 there was 150 billion cubic feet sold, of which 7½ billions was industrial heating, while in 1920 there was 320 billion, of which 80 billion was for industrial heating.

Use of Gas in Garages

The garages are one of our first prospects, as about 75 per cent of the heat treatment about an automobile in the manufacturing process is done with gas. Why then should we surrender our rights for other business to other fuels after the car has reached the customer and repairman? Among the many operations now performed by gas as a heating agent in the garage and repair shop are bending, welding, iron and aluminum brazing, lead burning, distillery, vulcanizing, japanning and hot caustic solution tanks.

The confectioners make good consumers, using gas for heat with confections' stoves, batch warmers and urns. These appliances do not throw a big demand on the lines but are business getters.

Small laundries can be sold on the gas proposition for drying, and rug cleaning establishments are also very good prospects. These installations have been sold in the larger cities to the repairers of oriental rugs. The washing and renovating of domestic or imported rugs is an industry found in almost every community. Rugs dried with gas come out light and soft, with each fibre of wool standing free on the warp, due to the character of the heat and absolute temperature control.

Newspaper plants are not to be forgotten with gas applied to the leadpots of the linotype machines and the auto plate pots.

Gas in the Food Industry

Gas can also be applied to the smoking, curing and preparing of meat and fish products, in the drying and smoking of hams and bacon with much better results because of temperature control which causes less shrinkage, which is a big item to the packer. The gain in shrinkage losses more than offsets the slight additional cost of fuel. The smoking and curing of fish is vastly different from meat and requires different handling, and the utmost care as to temperature, making gas the ideal fuel for this process.

Plumbing and tinners' shops can be worked up to be very good consumers and these are the people who want to be sold on gas and if the job is properly done something has been accomplished. Soldering furnaces are not large consumers, but are well worth installing.

Go after the business. Don't sell and then forget your customer. Stay with him and give him service, the kind that we all like to get, and then our industrial sale will show an increase. We can use the same slogan for this kind of service as we can for gas, "You can figure the cost, but not the value."

*Read at annual meeting of the Commercial Section of the Empire State Gas & Electric Association.

INSPECTION SERVICE FOR GAS CUSTOMERS

(Continued from Page 111)

college men working during the summer vacation. It is expected that the places of these men will be filled at the beginning of the college year with men out of the fitting shop, as by that time the seasonal slack period in that department will have begun, and as many men as can be spared will be put on this work. The aim and expectation is to finish up a complete inspection of the city within two years' time.

Beside the good will that is bound to result from the betterment of service, it is expected that this work of inspection will pay for itself through the reduction of complaints turned in by the customer, and through the sale of appliances sold upon tips given the New Business Department by the inspectors.

Religion and Advertising

The spiritual appeal in advertising

William H. Ridgway

Craig Ridgway & Son Company, Coatesville, Pa.

The following address was delivered before the convention of the Associated Advertising Clubs of the World at Atlantic City, June 5, 1923. The spiritual appeal in business is emphasized, not the appeal on a sectarian basis, but on the broad basis of spiritual interest.

MY principal business is doing what little I can to build up splendid Christian character in that magnificent product of modern times, the American working man. I merely build machinery to pay expenses.

For many years I have had a Sunday school class of some 250 men. Thirty years ago I was called into the poorest, and at that time the toughest, part of our town, to straighten out a dying Sunday school. It was thought I would be up there about three or four weeks. I have been there thirty years, and some of the leading men in this town today are the product of that little Sunday school. One of them is the superintendent of the great Bethlehem Steel Works, right across the railroad from where I write.

There is a tremendous by-product of religion which fellows with brains can take advantage of. I do not know a single large industry but at the head of it and responsible for its success is to be found what I know as a religious man; and in addition to this, I have investigated purchasing agents, and found the same thing true of them. I do not know a large concern which, when it wanted a purchasing agent, failed to go to the church and Sunday school in order to get him.

I have just mentioned the Bethlehem Steel Company, which next to the United States Steel is the largest corporation in that industry. They have recently purchased the big steel works next door to us here. We have done a large amount of business with their predecessor, the Midvale Steel Company, and wanted to continue with the new company. I was not acquainted with the purchasing department. When I went over to Bethlehem to see them, to solicit the continuance of their trade, I found the purchasing agent to be a Presbyterian elder, like myself, and as there is no free masonry like that of religion, we will have no trouble in getting along very nicely together, and, everything being eqqal, we are getting the business.

I am surprised that no other advertiser has ever struck the same note in his advertising that I have done. To indicate in a very substantial way that I have not made any mistake in my judgment in this matter, I have here in my home an offer from Detroit of what is probably the greatest sum ever offered a man for writing advertisements, no less than $200,000 a year.

When this offer came to me a couple of years ago, I said to Mrs. Ridgway, "If this offer had come twenty-five years ago, you and I would have been living at Detroit," but since I have just celebrated my sixty-seventh birthday, I just laughed at the offer. It would seem, however, that somebody out at Detroit has found out that in the newspapers where my advertisements are placed folks hunt them up and read the stuff and a very large number of them cut out the advertisements and take them home.

One of Mr. Carnegie's head men, for example, said to me one day, "Ridgway, your ad is the first thing the 'old man' turns to when the trade papers come in." It is the same way in all these other great corporations. We have neither agencies nor salesmen, and yet ours is one of the shops that always goes, and at the present time we have orders for all the elevators that we can make. When the business depression struck the country some months ago, we were just one year behind in our orders. This would indicate that it is perfectly safe to appeal in a business announcement to that which is nearest and dearest to the human heart.

One of the biggest advertising men of New York City met me one day and said, "Ridgway, I take every one of your advertisements home to my wife when the paper comes. If I happen to forget it, she wants to know what Ridgway has to say this week."

Every Christmas I used to carry a full page ad in the trade papers headed, "God Bless Us, Every One," and it was a little religious preachment in which I did not say a word about elevators except to wind it up with "Hook 'er to the B'iler" and of course, print our familiar cuts.

Near the close of my talk at Atlantic City I put a paper under my chin and challenged any one of the 4000 men present to tell me whether I had on a light necktie or a dark necktie, and there was not a man in the whole audience, although they had been looking at me for half an hour, who could tell me what color tie I had on. I find the same true in life. Men go through this world absolutely blind.

Until I began some years ago to call attention to the fact, no one realized that the big business enterprises of this country are in the hands of men who stand for this high and noble business which for want of a better word we sum up under the name of religion.

To give you an idea of how the things works, I was called on some time ago to make the address for the Y. M. C. A. at Bloomington, Ill. It had been

(Continued on Page 121)

As The Journal Views It

WARREN G. HARDING—HERO

Soft spoken and kindly was he. On his countenance always a smile of friendliness and of goodness, yet, day after day he carried on, staggering under a load, yours and mine, a burden which few would voluntarily shoulder.

The word "hero" suggests battlefields, cannon, bravery under fire, medals and decorations. Yet the greatest hero of all is the man who goes on, month in and month out, fighting for the cause of his country, fighting without flags or bands or fuss or feathers, standing firm to his convictions even in the face of criticism.

Such a man was Warren G. Harding.

TECHNICAL EDITOR APPOINTED

The American Gas Journal takes pleasure in announcing the appointment of Ismar Ginsberg, B. Sq. Chem. Eng., to be Technical Editor. Mr. Ginsberg is a chemical engineer who has had considerable experience in consulting work. He has been connected in unofficial capacity with the Journal for the past two years and is well versed in gas technology.

THE SERVICE CHARGE

The legislature of the State of New York recently passed a bill prohibiting gas companies from charging their customers for service, or for the installation and use of apparatus belonging to them. In other words, the service charge in the State of New York has been legislated out of existence, and it only remains to see whether the higher courts will uphold the legislature in its action.

What is a service charge, and why do gas companies levy it on their customers? The average consumer does not know the whys and wherefores of this charge, and when he first comes in contact with it, his animosity is aroused and he immediately launches forth in a diatribe against public utility companies in general and the gas company in particular. He calls to mind at once the sayings and utterances of politicians and political leaders, and he arrives at a quick, and all unknown to him, unjust conclusion that the gas company is just what the honorable so-and-so said it was, and that all they are out for is to "get his skin." He feels convinced that he is being treated unjustly, that he is being charged for something for which he is not supposed to pay.

Throughout all the ages of human history, the greatest force for evil has been ignorance. Whatever a man did not know, the inherent make-up of his mind led him to condemn as wrong, strange, or incomprehensible—something that was contrary to all good principles and precedence. The main reason why the gas consumer objects to the service charge is because he does not know what the service charge is or what function it is intended to fulfill. He does not appreciate the reasons that led the gas company to make this charge, and not knowing anything at all about it except that it means that he has to pay a certain additional sum each month on his bill, he immediately concludes that it is unfair and unjust.

In a certain way, the gas companies have been somewhat to blame for this situation, but in isolated cases only. The way to put the service charge over and show the consumer that it is fair and right for the company to make this charge is to explain to him what the charge covers and why it has become necessary. The average human being is a fair, reasonable person, and after all, the public is made up of you and me and all the rest of us put together, and we are generally fair-minded individuals ready to see the right and wrong of every question or problem. No one expects to get something for nothing, because no one expects to give something for nothing.

When the consumer understands that the service charge covers certain items of expense that the gas company has to meet every month whether he uses gas or not—when he realizes that the cost of serving him, of reading the meters, of making out bills, the expense involved in leading the gas through mains to his house and metering it to his kitchen or gas

chandeliers—when the gas consumer, after being informed of all this, thinks it over, he will surely come to the conclusion that it is no more than right that the gas company should charge him for all this service, and once the public is convinced of the fairness of the service charge, there will be no further difficulty with legislatures. For whether they like it or not, legislators must conform to the wishes of the public at some time in their existence, or else run the danger of being voted out of office.

The way to solve this problem is by direct appeal to the public, by educating gas consumers to see what is meant by the service charge and why it is imposed. When this ignorance has been overcome by educational propoganda, the rest of the problem will be solved without much difficulty.

Letter from Father to His Son in the Utility Business

My Dear Boy:

I am mighty glad to know that you have cast your lot with a public service corporation, such as the Philadelphia Company. You are a little young yet to realize what this can mean to you if you play the game out. You may resent some of the things I say, but, son, they are for your own good, taken from the experience I have gained as I have gone through life. They are not theoretical facts, but conclusions, drawn from actual contact with life in all its phases.

You are in a line of work in which the first lesson you must learn is self control. No other business in the work is so prone to be attacked as are the light, gas and railways companies and from all angles will come criticism, slurring remarks and digs. Many of these remarks are made on the spur of the moment and without consideration of the facts by the one who made them, and are sufficient to cause your blood to boil and your first impulse is to consign the maker to a warmer climate or cut him off with a short answer. But, before you do this, consider what the effect will be on your hearer.

If your answer is short, naturally, he will only come back at you and goad you with the result that you will soon be in hot water and get beyond your depth to a point where you cannot give any sort of an intelligent answer. How much better it would have been to have pointed out to him his error in a gentlemanly way. He may still be hot, but after he leaves you and thinks over what you have said he will begin to appreciate that he was hasty and will himself study a little bit before making another crack in your presence. Then, too, he may meet one of the officials and the fact that you gave information rather than a sharp answer will rebound to your credit.

You did not state what department you had been located in, but it makes no difference. Every branch of the public utility field is the same and the prestige of the company is at stake every time one of the employes meets a man on the outside.

You and the rest of the employes are ambassadors and the success and good will of the company depend upon the manner in which you meet and talk with those who know not the inner workings of the public utility. We are all too prone to accept the events of the day as commonplace, but you must not forget to look at it from the angle of the customer.

Suppose for instance, that you are at the contract window, and a woman customer comes in to have contracts signed for gas and light. To you it is a matter of routine and you can automatically record the facts, get the address from the book and complete the transaction. To her, however, it is a momentous event. It is probably the first time she has ever had to do that kind of a thing and the big building, the rushing back and forth of clerks and the number of people passing to and fro frighten her badly. By the time she can get to your counter, she is bewildered and ready to dart out of the door at the first word from anybody. She may not know who was the former occupant or the number of the street and if you ask her for it gruffly, she loses at once the little self assurance she has left. To her the whole proposition is torture, whereas to you it is, as I said before, automatic.

The same may be said of the person coming in to make a complaint of some character. Some of your customers have probably never been near the building and approach it with awe. If you receive her and treat her case as an individual entity, you will at once win the regard of the customer, who, having transacted the business which brought her there, leaves at once in a better frame of mind and with the firm conviction that the utility is not such a bad company as she was wont to believe. If you will keep ever before you the fact that each customer should be treated as a separate case, you will have taken a long step forward and will soon gain the reward which you merit.

Now let me know how you get along and write often.

DAD.

CORRECT USE OF MANUFACTURED GAS

(Continued from Page 114)

Lighting Should be From Incandescent Mantle Lamps Only

The incandescent gas mantle lamp is simply a Bunsen burner where the burning gas heats the material in the mantle to incandescence, thereby producing light. The lamp must be closely adjusted if efficient and satisfactory results are to be obtained. Hissing or roaring sounds are indicative of excessive or bad adjustment. Adjust the lamp by adjusting the air shutter and gas needle valve of the burner—if the burner has one—so as to obtain a maximum illumination and a quietly burning lamp.

Open-flame burners should not be used because they require:

a. For a given amount of illumination about four times as much gas as an incandescent mantle lamp.

b. The maintaining of obsolete candlepower standards which can be of interest to only a very small percentage of the total number of consumers and squarely against the best service interests of the majority of the consumers. The gas used in open-flame illumination is so small as to be negligible in comparison with the total volume of sales which the consumers are generally interested in.

An Expert's Reason for Advertising

The personal appeal of advertising and its reaction in developing good will

J. H. Hartog

Sales Manager, Portland Gas & Coke Co., Portland, Oregon.

ONE of the reasons for advertising was strikingly brought out by a California speaker at the convention held this month in Spokane, Washington, by the Pacific Coast Advertising Clubs Association.

We all know that it is of benefit to a Public Utility to tell the public about its affairs, but the speaker brought out a point that may not have occurred to some of us.

He was speaking on "The Bankers' Attitude Towards Advertising," and referred to the British bankers in Canada who were so conservative that they tenaciously clung to old methods. He said that they all realized however the advantage of having their officers and department heads belong to the various clubs in their particular city and mingle with the members, for no other reason than to make the people with whom they came in contact feel friendly towards them. The underlying thought was, he said, that these hard-headed financiers believed that people would be apt to carry their deposits and do their business with the man they liked the best, other things being equal.

This same sensible motive can be applied to a gas company or other public utility, not only as regards belonging to clubs and mingling with people, but to the actual advertising, for it goes without saying that by keeping ourselves before the readers of the newspapers through attractive and interesting advertising we make them feel as if they know us, even though they have never been inside our office or salesroom. Having something relating to our actvities placed before them in such a way that as they glance over the newspaper they cannot help but notice it, familiarizes them with us to such an extent that they gradually become to consider us as part of their daily life. This reason for regularly advertising is one that evidently is not very often taken into consideration in many a town. Most people seem to be more interested in what results advertising brings them in immediate returns, rather than in the abstract. And yet the abstract deserves our attention just as much as the immediate dollars and cents. As Dr. Arthur F. Sheldon puts it: "Selling goods that won't come back, to customers who will." This is a clever way of expressing in a few words that the principal thing a merchant should be looking for is good-will that continues and not momentary profits or earnings.

Advertising Creates Good Will

Advertising will create good will. The very fact that those who write the newspaper contents are familiar with or friendly to the utility, eliminates many an unkind jab that otherwise might be allowed to pass. That's only human nature. But aside from this indirect benefit, there's the banker's viewpoint that the public will involuntarily deal with those they like best, or with those to whom they at least feel friendly.

If in conjuncion with the personal appeal through cheerful, truthful advertising, the utility will adhere to a policy of selling only good appliances, "not how cheap, but how good," the public's patronage will serve in the public's education to modern improvements and to the superiority of gas as a fuel.

RELIGION AND ADVERTISING

(Continued from Page 118)

very widely advertised. When I got to Chicago I found that the leading business men had arranged for a complimentary dinner at the Union League Club. There were seventy-five to one hundred present. The toastmaster was the head of Marshall Field & Co., and the attendance included the head men of the Quaker Oats Company, the International Harvester Company, the Forgan banking interests, Sears, Roebuck and Co., Montgomery Ward and Co., the manager of the Sears estate, the presidents of railroads, Patten, the wheat man, Victor Lawson and other newspaper men, judges and in fact the very cream of Chicago business men. They only knew me in a religious way and came to do me honor. These men are the heads of concerns to which advertisers want to sell.

It is amazing to me that other men have not found out what I have found out, but it is just like the necktie episode; they go through the world blind to what is going on about them.

When I go personally to see a great concern in regard to using our product, I am almost invariably asked into the inner office to meet "his royal highness," and it generally winds up that I have all kinds of invitations. Mrs. Ridgway and I went to Rochester one day and we had no less than four or five automobiles with their chauffeurs placed at our disposal by men who knew me from my religious con-

nection. The secretary of the Eastman Kodak Co., for example, is a Sunday school teacher like myself, having a Sunday school class of 1,000 men.

At Chicago, Mr. Utley, vice-president of the International Harvester Company, did the same thing for us with his car and chauffeur. Mr. Utley sent for the young man who has charge of the advertising for the International Harvester Company, and introduced me to him, saying, "Here is a fellow who can give you some pointers in the advertising game."

Of course, the only pointer I could give him was to let him know that 90 per cent of the farmers to whom he wanted to sell his agricultural machinery were men who belonged to church and go to church, and he could, whenever he liked, appeal to the spiritual side of his customer and he would score every time. But it is dollars to doughnuts the young man never did it, for he would be afraid, because it is in human nature to go along the line of least resistance; it is only the hundredth man that has the vision and the courage and the faith.

An advertising magazine asked me for a subscription. I shocked the circulation manager by telling him that I very carefully avoid reading any technical magazines on advertising, because I am afraid I would be influenced by them and would not be able to preserve my originality.

Every great invention has been made by someone outside of the line of that invention. For example, the flying machine was not produced by the balloonist, but by a couple of bicycle repair men. The phonograph was not invented by a musician, nor moving pictures by a photographer. The telegraph was invented by a portrait painter. The spring bed was not invented by an upholsterer and the sewing machine was not invented by a woman or a tailor. The steamship was not invented by a sailor, and so on all the way down the line. The great electrical business, headed by the General Electric Company, was not founded by any one in the electrical business, but by Mr. Coffin, a shoemaker of Lynn.

A while ago the aviators asked Mr. Edison to visit one of the aviation fields to witness the landing of the airplanes, with the view of inventing a device to make the landing more safe than it is now. Mr. Edison refused to go, saying that whoever invented this device would be a man who was not acquainted with the technical part of the problem.

In our own case I produced our present steam hydraulic elevator, and I did not know a single thing about elevators, being engaged in the manufacture of an entirely different line; but I was able to see what the elevator manufacturers could not see. If you ever stood behind a fellow playing checkers you will understand this human peculiarity. So it is with advertising.

The trouble with advertising today is that it is so much alike that it is not as effective as it ought to be for the money expended. You take up one of the magazines or business papers and you cannot help being struck by this fact and perhaps amazed by the various means that different advertising men take to do something that will be really efficient along that line.

People do not see what is right before their eyes day after day. There hung in our office here a calendar about 3x4 feet in dimensions. It advertised wire rope. There was a great drum of wire rope on it, done in colors. It had hung in the office for a year. One day in December I turned the calendar to the wall and bet a box of cigars that nobody in the office could tell me what that calendar advertised. No one won the cigars. Try the experiment yourself.

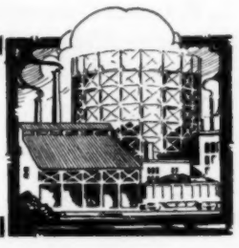
The reason of that is because these advertisements do not appeal to the paramount thing is what we call our religion, whether Protestant, Catholic or Hebrew. When we are born we are taken to the church to be christened. When we are married we are taken to the church for that service, and when we pass out the church comes in again. The great mass of Americans are religious people, as is evidenced when any great catastrophe comes upon the country. All the fruits of religion are found in their perfection in this great people.

I think you can see from some of our advertisements why it is that thousands of men cut them out and preserve them, many times often to my material advantage, although this is not altogether my reason for striking this note. I have 200 years of Quaker blood in my veins, and when I sit down to write an advertisement I set down whatever comes. I write my advertisements on pieces of time, usually at the close of the day. I make no secret of doing business on my religion, but make the statement in our advertising, "If religion is not a good thing to do business on, it is no good for anything else."

Gas From Coal

In the process, which is patented in British Patent No. 198,777, for gasifying coal in which the coal is carbonized in the upper part of a retort and the resulting coke converted into water gas in the lower part of the retort, the water gas may be passed upwards through the coal to gasify it, but it has been found that the sensible heat of the water gas, with or without practicable superheating, is not sufficient for the complete carbonization of the coal. In this invention some of the gas leaving the upper end of the retort during a run period is forced through a regenerator which has been previously heated by the blow gas. This gas is then passed into the lower part of the carbonization chamber of the retort. The temperature of the blow gases within the regenerator may be increased by supplying secondary air for their combustion. The quantity of hot gas passed through the carbonization chamber is thus in excess of the quantity produced by the gasification of the coal during the same period, and the heat supplied to carbonize the coal is also in excess of the quantity of heat available from the gas generated during the same period. An apparatus for carrying out the process is described.

NEWS OF THE GAS INDUSTRY



Consolidated Gas Co., New York, Wins Point in Gas Action

Judge Francis A. Winslow of the Federal District Court, after hearing arguments on objections raised by States Assistant Attorney General James A. Donnelly and E. M. Deegan, counsel for the Public Service Commission in the suit brought by the Consolidated Gas and subsidiary companies testing the dollar gas law, upheld the contention of ex-Judge William L. Ransom, counsel for the Consolidated, that the plaintiff was entitled under the equity rules to set the order of the trial of the various suits.

In order to allow the Consolidated Gas Company time to make an inventory of its investments and the value of its property, the cases of the New York and Queens and Bronx gas and electric companies will be heard first. This will save six months in the time of the hearing before Special Master James G. Graham, who is taking testimony in the case.

Gas Plant Drives Loaded Motor Truck

A complete gas manufacturing plant, weighing three hundred pounds, was recently installed on a 4-ton motor truck and supplied fuel to operate the fifty horsepower motor.

A trip from Calcutta to Barackpore, India, and return, of about thirty-four miles, with the truck loaded to capacity, was made with gas produced from ninety-five pounds of charcoal, and at a cost of approximately half the cost of gasoline for the same distance.

Gasoline, or petrol, in India is so expensive as to make its use almost prohibitive for trucking, and the alternative bullock-carts are too slow for the transportation of many commodities. The manufactured gas made on the truck has proved excellent fuel, and it is expected that the gas-plants will soon be in general use.

St. Charles Gas Franchise Extended 20 Years By Vote

St. Louis, Mo.—The St. Charles Lighting Co., supplying gas to approximately 1,600 consumers in St. Charles, was granted a 20-year franchise in a special election, held there recently, in which a total of 205 persons voted. The proposition received 119 favorable votes and 86 were cast against it. This is approximately 6 per cent of the total voting strength in St. Charles.

Extension of the franchise was sought as a preliminary move to organization of a new company, according to John C. Atwood of St. Louis, representing the Bondholders' Protective Committee, which purchased the property for $50,000 at a receiver's sale, July 24, 1922. The company was forced into receivership in January, 1922, after failure to meet the interest payments on a bond issue of $150,000, floated in 1905. It was a subsidiary of the Union Utilities Co. of Chicago.

A 25 per cent rate increase was granted the company by the State Public Service Commission in July, 1922, on a valuation of $160,000.

Rates Confiscatory

Chattanooga, Tenn.—The Chattanooga Gas Company has filed a petition in the United States District Court at Nashville, Tenn., alleging that the reduced gas rates recently ordered by the Tennessee Public Utilities Commission are confiscatory, and seeking the repeal of the commission's order. The rate ordered was $1.25 per thousand for the first 50,000 feet of gas, and 90 cents for all over that footage. This, the company contends, does not offer it a fair return on its investment.

Trinidad Gas Co. Increasing Capacity and Increasing Service

The Trinidad Elec. Trans. Railway & Gas Co., Trinidad, Colo., are making several improvements in their plant. A new bench of sixes is being erected by the Improved Equipment Company, which will increase their capacity nearly fifty per cent. A concrete building has been completed to house the new 6½′ x 6½′ wet station meter and new P. H. and F. M. Roots Booster which have been received. Delivery has just been made of an 80 horsepower boiler.

Five miles of welded 2″ and 4″ main has been laid this year in various parts of the city, partially due to paving of streets, but principally to the demand for gas service.

Drillers Strike Gas Well in Ohio Field

Gallipolis, Ohio.—A gas well drilled on the farm of Fred Pugh, near Glen Roy, is today flowing 8,000,000 feet per day at a depth of 2,500 feet.

Drillers struck a valuable vein of coal at 155 feet. A new gas well on the Clyde Scott farm, nearby, is making 2,000,000 feet a day. Other wells are going down.

Asks Permission to Amend and Renew Charter

Savannah, Ga.—The Savannah Gas Company has applied for permission to amend and to renew its charter for a period of 20 years, the amendment carrying authorization to increase the capital stock of the company to $5,000,000 at any time during the period of renewal. The company has recently issued a $600,000 series of first mortgage bonds paying 6 per cent, which are now being offered by the Citizens & Southern Bank, of Atlanta. The Savannah company is in excellent shape financially.

C. P. Couch Goes to Mississippi As General Manager of Arkansas Light & Power Co. Interests

Mr. C. P. Couch, member of the board of directors of the Arkansas Light and Power Company, who has been manager of the Arkadelphia-Malvern district of the Arkansas Light and Power Company, has been made the active vice-president of the Mississippi Power and Light Co., operating public utilities at Jackson, Vicksburg, Greenville and Columbus, Mississippi. Mr. Couch has already assumed his new duties. He is succeeded as manager of the Arkadelphia-Malvern district by H. F. Cameron, who has been with the operating department of the Arkansas Light and Power Companies for some months.

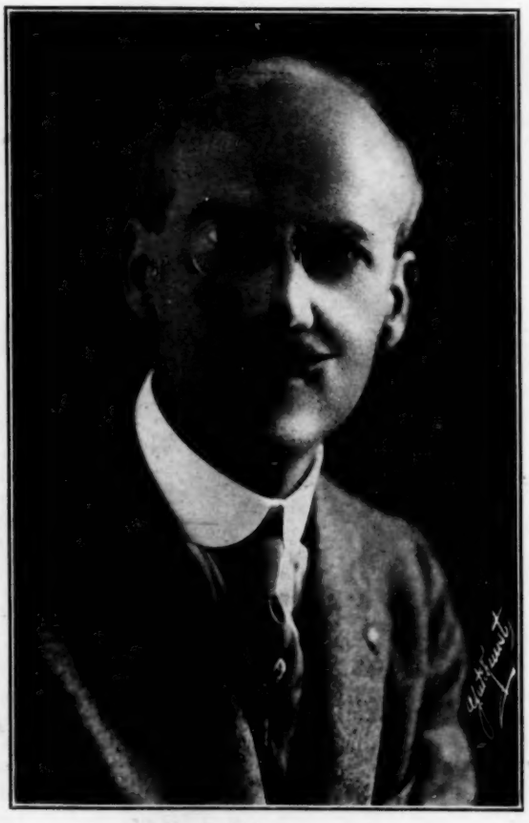
The Mississippi Power and Light Company, of which Mr. Couch has become active vice-president, with headquarters at Jackson, Mississippi, was organized recently following the acquisition by H. C. Couch, J. L. Longino and their associates of controlling interest in the electric light and power, street railway and gas properties at Jackson, the electric light and power and gas and the street railway properties at Vicksburg, the electric light and power and street railway properties at Columbus and the electric light and power and street railway properties at Greenville. From Greenville the company has a transmission line serving Lake Village, Arkansas.

The officers of this company are: H. C. Couch, president; C. P. Couch, active vice-president; J. L. Longino, vice-president; W. E. Baker, treasurer, and L. Garrett, secretary.

C. P. Couch enjoyed a unique distinction—a distinction denoting not only his willingness to be of service in community life but also the esteem in which he is held by the people of Arkadelphia and Malvern. He was chairman of the membership committee of the Arkadelphia Chamber of Commerce, a member of the board of governors of the Malvern Chamber of Commerce, a member of the Rotary Club of Arkadelphia and a member of the Laymen's Club in Malvern. He is also a Shriner—holding membership in Sahara Temple, Pine Bluff.

John B. Klumpp Elected President Allentown-Bethlehem Gas Co.

John B. Klumpp, of the United Gas Improvement Company, Philadelphia, who recently was nominated for president of the American Gas Association, has been elected president of the Allentown-Bethlehem Gas Company, Allentown, Pa., to fill the vacancy caused by the resignation of Dr. Walton Clark. For the past ten years Mr. Klumpp has been closely associated with the affairs of the Allentown Company.



John B. Klumpp

L. S. Streng Made Vice-President of Louisville G. & E. Co.

L. S. Streng, chief engineer and general superintendent of the Louisville Gas and Electric Company, was elected a vice-president of the company at a recent meeting of the board of directors. Mr. Streng has been with the company for ten years, having been chief engineer of the Kentucky Electric Company when it was purchased by the Louisville Gas and Electric Company in 1913. He was graduated from the Massachusetts Institute of Technology in 1898, where he received the degree of bachelor of science in electrical engineering, and the following year he became assistant chief engineer of the Public Service Company of New Jersey, where he remained until joining the Kentucky Electric Company in 1906.

Offers to Buy Steam

Atlanta, Ga.—The Georgia Railway & Power Company has offered to the city of Atlanta the sum of $30,000 per year for the use of the steam generated by the city crematory, and if the offer is accepted will use the steam in the operation of the company's gas plant. At present this steam is entirely a waste product.

Barbecue Is Given At Local Gas Plant

Columbus, Ga.—The Columbus Electric and Power Company gave a barbecue at the gas plant, which was largely attended by employees and officials of the company.

According to an announcement made by officials of the company, the employees have been holding barbecues for the last few years, but, on account of the good showing made by them this year, they were given a barbecue by the company.

The affair was made as much a company occasion as possible, several negroes who were past artists at the art of preparing barbecues being in the employ of the company. These "chefs de cuisine" got busy and prepared a sumptuous feast for the grand ensemble which greeted the results of their efforts with drawn faces and lolling tongues.

Besides about 75 negro employees of the company, the following officials were present: C. E. Bell, superintendent of the gas company; A. M. Spencer, gas foreman; R. Meadows, distribution foreman; Charlie Gradic, assistant to Mr. Meadows, and Cecil Johnson and J. King, students of Georgia Tech, who are now working with the gas company in the capacity of chemical engineers.

Sale of Gas-Burning Appliances Will Exceed $40,000,000 in 1923

The manufactured gas utilities of the country not only are selling the greatest volume of gas in their history, but sales of gas-burning appliances also are showing corresponding increases. More than $40,000,000 worth of appliances will be sold to the public in 1923 by gas companies alone, according to reports filed with the American Gas Association, exclusive of sales made by dealers who do not report to the association. This means that for the 9,200,000 meters in service, more than $4 a meter will be spent this year in gas company salesrooms for ranges, water heaters, lighting units, room heaters and other appliances.

To supply the unprecedented service demands, the gas companies are successfully financing a building and expansion program that will enable them in 1923 to add to their service mains several thousand industrial shops and plants and about 400,000 household customers.

"The big end of the gas business is rapidly shifting to the industrial field," the association states. "In the last ten years the total production of gas has increased 100 per cent, while during the same period the consumption of gas for industrial heating uses has increased 1,000 per cent. The growth of the industrial business has been particularly pronounced during the last two years, when coal strikes and transportation difficulties have caused many plants and shops to change from solid fuel to gas."

Illinois Commerce Commission Orders Reduction in Rates

Chicago, Ill.—The Illinois Commerce Commission has ordered a reduction in gas rates of the Public Service Company of Northern Illinois.

A tribute to the fixed policy of the Public Service Company of serving its 220,000 customers at the lowest possible rates was paid the company by the commission in its order readjusting the company's rate schedules. The commission, in a statement given to the newspapers, said:

"In the case of the Public Service Company of Northern Illinois, the order issued today is the result of a long hearing and of much investigation by the commission. The rates established, however, are the result of a number of conferences, as the commission might have been compelled to fix much higher rates for some of the services rendered if the 'reasonable return upon the value of the property' demanded by the courts had been insisted upon to the letter."

The commission, in its order, paid tribute to the condition of the vast properties of the company when it said:

"The electric plants were found to be well kept up, comparing favorably with other electric property in the state. Gas plants were found to be in better condition than the majority of plants at the present time. The exhibits offered by the commission engineers assigning a per cent condition to the different property and the present operating condition of all the major items of the electrical property, with the exception of land, right of way and water rights, were noted. The present operating condition was stated to be approximately 87.5 per cent. For the entire gas property, with the exception of those portions lying in east areas, an 88 per cent condition was given.

"The condition of the entire property is approximately 90 per cent of the condition when installed or constructed."

In discussing the previous rates charged by the company, the commission said:

"The commission finds that the rates charged in and collected by the Public Service Company of Northern Illinois in its various branches of service, during the period since the temporary rate order of July 31, 1920, as applied to that period, are not excessive or unjust to the consumers. It finds that the rates now charged by the company for heat and water are not excessive.

"The commission is of the opinion, however, that the time has come to reduce and readjust charges of the company for electric and gas services, particularly to residential consumers, and the rates prescribed will yield a fair return upon the present value of the property used and useful in the public service."

According to the announcement of the commission, the present Rate "A" general lighting service will be reduced one cent per kilowatt hour effective August 1 and an additional one cent on January 1, 1924, for electricity used equivalent to or less than the first thirty hours used per month of the maximum demand in the month. Household gas users will effect a saving of five cents a thousand cubic feet under the order. All gas rates will be reduced five cents per thousand cubic feet in the first block. The reduction in prices are of particular interest to residential users of electricity and gas.

The reduction in electric rates is the sixth decrease since 1911, when the company was organized to consolidate a number of small utilities, operating in the northeastern section of Illinois. The new gas rate is the second reduction since a temporary advance was allowed on July 31, 1920, to meet war-time necessities.

Gas Company Seeks Power Franchises

Albany, N. Y.—The Municipal Gas Company, at a hearing of the public service commission, applied for permission to purchase the franchise rights of the Atlantic Light and Power Company in the town of Bethlehem and a portion of the company's franchise rights included in the northern part of the town of Coeymans. There was no opposition and it is expected the commission will give its decision at an early date.

If the application is granted the Municipal Gas Company will have general franchise rights in Bethlehem. It was stated at the hearing that one of the main purposes of the proposed purchase is to permit the Municipal Gas Company to construct a new transmission line to the new railroad yards being constructed in Bethlehem by the Hudson River Connecting Railroad Corporation. Neil F. Towner, counsel, and Carl H. Graff, vice-president, appeared for the gas company.

House Heating By Gas to Be Made Subject of Active Campaign

Plans are being completed by the Public Service Co. of Northern Illinois for an energetic propaganda of the subject of gas for house heating. The move might be called a selling campaign, since the sale and installation of gas-fired boilers will be its object. It will, however, be accompanied by a more detailed broadcasting of the idea than usual.

Gas for the purpose has had a very thorough test in the company's territory and elsewhere, and it has proved its case. The essence of the latter sums itself up in an array of convincing facts. The average house-heating plant built to consume coal realizes, so engineers state, hardly more than 30 per cent efficiency. That is to say, that proportion only of the heat units in the fuel is diverted to the useful work of heating, the remainder being lost in radiation, flue losses and imperfect combustion. A modern gas boiler may be relied on, so the same engineers state, to contribute to the heating job 75 to 80 per cent of the heat values in gas. Damage to the premises by soot and dust is disposed of when gas is burned and this item, although difficult to express in terms of money, is undoubtedly large and is, of course, an addition to the cost bill when coal is used.

In the past year or two the number of houses in the territory making this use of gas has materially increased. Included are several newly built residences in which, in addition to a thorough and complete electrical equipment, every feasible use is made of gas. For the most part these houses are located in the larger suburbs adjacent to Chicago. A careful canvass of these sections develops the existence of several hundred "prospects." It isn't doubted that as many more will be transferred to the same list when more opportunities to observe the heating work of gas are afforded by additional installations. But numerous parts of the company's territory afford a fine field for this class of business.

It is very good business, is that of house-heating by gas, considered from several standpoints, among which is the operating factor in the equation involved. A steady pulling demand at times in the day when the ordinary demand is light, it will be clear even to those not in the gas department, is a highly desirable condition.

The uses of gas as fuel in heat processes in so called small industries continues to expand which means new uses are being developed constantly. This condition prevails in all sections of the company's territory served with gas.

New Commercial Manager

The Fort Smith Light & Traction Company, Fort Smith, Ark., announces that Chas. L. Leighton has accepted the position of manager of their commercial department. Mr. Leighton is new in Arkansas work, but he comes very highly recommended. He has been associated with the Minnesota Electric Light & Power Company of Chicago for several years as manager of their property at Cushing, Oklahoma. Mr. Leighton has been engaged in utility business for the past eight years, and is well known in utility circles in Oklahoma.

New Rate Schedule

Lansing, Mich.—An order issued by the state utilities commission reduces gas rates in the territory served by the Muskegon Traction and Lighting Company approximately 20 cents per 1,000 cubic feet.

The schedule authorized by the commission provides for a charge of $1 for the first 500 feet or less; $1.65 per thousand for the next 4,500 feet; $1.60 for the next 95,000; $1.50 for the next 100,000; $1.45 for the next 300,000; $1.40 for the next 500,000; $1.35 for the next 500,000, and $1.10 for all over 1,500,000.

The commission determined that the actual cost of gas production in the plant is $1.147 per thousand and the schedule allowed provides for an average return of about $1.50 per thousand. It is estimated that this will return a revenue of about 7 per cent on $700,000 valuation.

The commission found that the company had a deficit of $56,834 in 1920; a deficit of $6,861 in 1921, and a profit of $44,198 in 1922.

A discount of 5 cents on all bills of 500 cubic feet or less, and 10 cents per 1,000 on all over that, are specified in the order, where the bills are paid within 10 days from date of rendition.

Announces Rate Reduction

Minneapolis, Minn.—Gas rates in Minneapolis will drop 4 cents, beginning Sept. 1, A. T. Rand and C. T. Jaffray, receivers for the Minneapolis Gas Light Company, announce. The present rate is $1.05 and the new rate will be $1.01 for a period of four months. This will effect a total saving of about $45,000 to the 102,000 gas consumers in the city during the four month period, E. W. Brace, secretary, said.

Under terms of the receivership, the gas rate fluctuates with the holder cost of gas, every four months. This cost was 50.68 cents per 1,000 cubic feet from March 1 to June 30, whereas it was 54.94 for the preceding four months, on which the current rate is based.

The city of Minneapolis receives gas for 13 cents per 1,000 cubic feet less than general consumers, so that the new rate to the municipality will be 88 cents.

Maryland Public Utilities Organize

To perfect the organization of the Maryland Public Utilities Association, representatives of fifty-three public utility companies met with the State Public Service Commission, July 26, in the chamber of the House of Delegates at Annapolis, Md. In that room where so many of the State's laws are made, the officials of the Maryland public utilities, having the hearty co-operation of the men who represent the public in their affairs and regulate the rates by which the companies continue in the business of public service, a new chapter was written in the moral laws of the State. And this new law, all the more stringent because of its origin, is the crystallization of sentiment of those who manage Maryland's public utilities today, embodied in the word—Service.

In his address to the members of the Association, Governor Albert C. Ritchie, spoke of that "Service." In fact, he suggested that the Association should substitute the name "Service" for "Utilities" in its corporate title so that the Association's very name would bespeak the aims of the officials and employes of the companies composing the Association. Service, said the Governor, meant the realization by officials of public utilities that they are servants of the public or quasi-public officials. Their duties to the public are as high as, and even more intimate than, the duties of public officials duly elected by the people. People today depend so much in the daily routine of their lives upon the water, gas, electricity and railway companies that the service these corporations render must be of the right kind; it should be constant, honest and courteous. The Governor declared that the meeting was one of the most progressive steps the State had taken in years and he urged upon the representatives present that they take the people more and more into their confidence.

Emory L. Coblentz, president of the Association and president of the Potomac Service Company, Frederick, Md., accentuated the value of co-operation with the public and showed the pleasure he felt because of the interest aroused. "Through our organization," stated Mr. Coblentz, "every utility in the State may gather lessons which other organizations have learned through hard experience. The Public Service Commission, which really started the move, will have its work lightened when it works with an organization whose sole aim is SERVICE. We can now adjust many of our minor troubles and, what is more important, we may avoid many of them."

Excoriating the "public-be-damned" policy, Charles M. Cohn, vice-president of the Consolidated Gas, Electric Light and Power Co. of Baltimore, spoke of the rapid progress that could be made through co-operation. "The public-be-damned spirit of our forefathers is antique and not wise in our day," Mr. Cohn said. "I have seen this tried. Our lines of business will never run with any smoothness until we have learned a lesson in common courtesy and have forced our employes to follow our example. We cannot successfully disregard our customers' feelings any more than a merchant in a highly competitive business can."

Other speakers were C. E. Robertson, Cambridge, Md.; George W. Woolford, one of the members of the Association's Board of Directors, also of Cambridge; Henry Holzapel, Jr., vice-president of the Potomac Service Company, Hagerstown; C. D. Emmons, president of the United Railways, Baltimore; George H. Warren of the Chesapeake and Potomac Telephone Co., Baltimore; Herbert Wagner, president of the Consolidated Gas, Electric Light and Power Company, Baltimore; M. F. Riley, of the Potomac Public Service Company; Lambert St. Clair, director of advertising of the American Electric Railways Association, and George W. Oxley, of the National Electric Light Association.

Discussion of annual membership dues took up a great part of the conference.

Permanent headquarters for the organization was chosen at the Engineers' Club, Baltimore. Governor Ritchie entertained the entire delegation at luncheon in the Executive Mansion.

The next meeting of the board of directors will be held in Baltimore, September 21.

Hearing for Stock Issue

Boston, Mass.—The Department of Public Utilities gave a hearing to the Springfield Gas Light Company, which petitioned for authority to issue additional capital stock to the amount of $647,925. This stock issue, it was explained, was to meet floating indebtedness and to provide for permanent improvements and extensions. The par value of the stock is to be $25 and the directors wish to issue at $37.50. Attorney B. N. Johnson for the company and Vice-President E. E. Manson explained the situation, saying that they would file with the auditing department of the Utilities Department more complete data.

Washington Gas Light Co. Installing New Equipment

On account of the general increase in its business, the Washington (D. C.) Gas Light Company has found it necessary to arrange for the installation of additional Carburetted Water Gas Apparatus, and to that end has contracted with The U. G. I. Contracting Company of Philadelphia, to install the latest model U. G. I. apparatus, having a daily capacity of 3,500,000 cu. ft. With the apparatus will be installed the U. G. I. Model "B" Automatic Control, and the U. G. I. Thermo Control.

The Washington Company has also commissioned The U. G. I. Contracting Company to install three (3) additional Model "B" Automatic Controls on its existing Carburetted Water Gas Apparatus.

Work on this installation is being pushed so that the new equipment will be available in the very near future.

Gas Output to Be Increased At New Orleans

New Orleans, La.—Foundations have just been completed for the new gas set and boilers for the New Orleans Gas Company. The estimated cost of the new installation is $310,000, according to Arthur Merchant, superintendent of the gas company.

"The new unit will be equipped with automatic operation, the last word in the refinement of the process of carburetted water gas manufacture," said Mr. Merchant. "The automatic control proper, consists

of a self-winding clock mechanism geared to cams which through the medium of hydraulic cylinders manipulate the valves of the water gas set apparatus in correct sequence."

The contract for the erection of the new set and boiler has been awarded to the Western Gas Construction, of Fort Wayne, Ind.

When the new plant is installed, the daily capacity will be 18,500,000 cubic feet of gas. The additional capacity contributed by the new set being 3,500,000 cubic feet per day. When the automatic controls are installed the duties of the gas makers become simply that of supervising the generator and cleaning the fires. All of the producing equipment will be equipped with automatic controls. The cost of installing the controls together with the installation of the new water gas set and waste heat boiler will approximate $100,000.

Two steam-driven engines for the new exhauster and booster have been ordered from the Ames Iron Works to be purchased from the P. H. & F. M. Roots Company of Connersville, Ind. This will take care of the increased demand for gas. Work has been started on the foundations of these engines which should be ready to operate as soon as the new generator and boiler have been completed on or about October 1st. The cost ot these engines and foundations will approximate $65,000.

Additional oil storage facilities have been ordered from the Phoenix Utility Company for the construction of a 2,000,000 gallon oil tank, at a cost of $60,000.

The Steere Engineering Company of Detroit, Michigan, has been awarded the contract for a complete gas cooling and condensing installation, with a capacity of 10,000,000 cubic feet of gas per day in summer and 20,000,000 feet per day in winter. Assisting this apparatus, an atmospheric cooling tower will be erected. Water will be pumped directly from the concrete pan into the coils stand, to the top of the atmospheric cooling tower, whence it flows by gravity down through the tower and is collected again in a basin and redistributed to the troughs over the cooling coils.

The cost of this equipment will approximate $75,000.

Deland Gas Co. Organized

Deland, Fla.—At a recent meeting permanent organization of the Deland Gas Company was effected with the election of the following officers: J. E. Bush, president; V. W. Gould, vice-president; T. L. Osteen, secretary; Dr. G. W. Fisher, treasurer; L. M. Patterson, manager. Directors to serve with above are: Dr. J. E. Taylor, Dr. W. S. Taylor, Dr. W. A. Finley, R. H. Boyd and P. C. Mayo.

The company will be incorporated for $100,000, of which half will be in common stock and the balance in preferred stock, bearing interest at the rate of 8 per cent. Sufficient stock has already been subscribed to take out the incorporation papers and as soon as the company's attorney, T. B. Stewart, has completed this step additional measures for the sale of stock will be made.

A franchise has been granted to the company by the city and is held in trust by Messrs. G. A. Dreka, V. M. Fountain and J. H. Tatum until the company receives its charter and is actively engaged in business. Tentative orders for stock will be taken now by the manager.

New Holder At Reading Completed

Reading, Pa.—The new gas holder of the Consumers' Gas Company at the foot of Fifth Street, which has a capacity of 2,000,000 cubic feet, and cost $285,000, is being gradually filled.

Before the inflation began the immense receptacle was purged of air. It was forced out through four three-inch screened outlets on the roof of the holder and the process required 4½ hours.

The first flow of gas into the receptacle amounted to 500,000 feet. This filled the first section. It is being fed gradually into the holder on account of the painting of the exterior. For this reason 10 days will be allowed for filling the holder to maximum capacity. It passes from the manufacturing plant through a 24-inch inlet. The holder has two outlets, one of which is 20 inches and the other 24 inches.

The addition will increase the storage capacity of the plant to 2,875,000 feet, which is about equal to a peak consumption for 24 hours in the winter time. The daily average consumption for the latter season is 2,225,000 cubic feet.

The company now has four holders. The two old ones at the foot of Fifth Street have a combined capacity of 575,000 feet and the one at Buttonwood and Rose Streets, 300,000 feet.

The U. G. I. Contracting Co. of Philadelphia, had the contract for the big job. The steel was furnished by the Cruse-Kemper Co., of Ambler. William H. Hathaway was superintendent of construction. The work was done under the supervision of Allen C. Taylor, assistant manager of the Consumers' Gas Company.

The completion of the holder brings the amount the company has spent on improvements in recent years to $600,000. It has 26,000 commercial and household patrons, and besides Reading, suburban points, including Birdsboro, Mount Penn, Pennside, Oakbrook, Shillington, West Reading, Wyomissing, Wyomissing Hills and West Lawn are supplied, and Sinking Spring will be added within thirty days. After the work at the latter point is finished operations on the line to Hyde Park will commence. This exension will take about three months.

New Agencies Appointed

Uehling Instrument Co., Paterson, N. J., have just made two agency appointments, namely, Amsler-Morton Company, Fulton Building, Pittsburgh, 2039 Railway Exchange Building, St. Louis, Mo., for eastern Missouri and Southern Illinois. Mr. H. R. N. Johnson, who formerly represented the Uehling Instrument Company in Minnesota and the Dakotas, has joined the W. P. Nevins Co., 120 S. Ninth Street, Minneapolis, Minn., which company is now the official Uehling representative in the territory mentioned.

Gas Company's Bond Issue of $350,000 O. K.

Evansville, Ind.—The petition of the Southern Indiana Gas and Electric Company, asking the Indiana Public Service Commission to authorize the issuance of $300,000 additional bonds and $50,000 preferred stock, was granted July 20, it was learned from a copy of the Public Service Commission's report.